

## II. SPECIFICATION AMENDMENTS

Please amend the Title as follows:

**CODED POLARIZATION-DEPENDENT ~~ANALYZING~~INTERFEROMETRY**

On page 1, after the Title, please add:

This is the National Stage of International Application No. PCT/EP2002/010285, filed 13 September 2002.

Please amend the paragraph on page 1, lines 3-5 as follows:

The present invention relates to ~~analyzing an optical signal transmitted through a device under test (DUT), in particular to analyzing an optical signal transmitted through a DUT located in a measurement arm of an interferometric measurement setup.~~

Please amend the paragraph on page 1, lines 7-8 as follows:

It is an object of the invention to provide improved analyzing of an optical signal transmitted through a DUT located in a measurement arm of an interferometric measurement setup. The object is solved by the independent claims.

Please amend the paragraph on page 1, lines 16-24 as follows:

Although signal parts having a certain polarization are superimposed, it is possible to unambiguously separate the information in each signal part allocated to a certain polarization due to the present invention. This is made possible by making each signal part unique. Preferably, this can be done by coding each signal part. According to the present invention coding can be any type of coding as long as it is possible to identify each signal part by the used way of coding. E.g. coding could be done by any unambiguous coding scheme as known in the art, such as e.g. by modulating the signal (preferably with a pilot tone at a special frequency), and/or by applying a special code to the signal, etc.

Please amend the paragraph on page 2, lines 17-22 as follows:

~~In a second embodiment of the present invention,~~ The DUT is located in a measurement arm of an interferometric measurement setup. It is possible to perform such interferometric measurements with an optical signal tuned in frequency or wavelength provided by a tunable laser source (TLS). Due to a preferred embodiment of the invention it is possible to make single sweep measurements in such setups and still gaining the polarization dependent information about the DUT.